

| | |
|-----------------------|---|
| Project Title: | DEVELOPING THE UNTARGETED METABOLOMIC WORKFLOW FOR HIGH-THROUGHPUT ANALYSES |
| PI: | Patti, Gary Joseph |
| Institution: | Washington University |
| Grant Number: | R01ES022181 |

These search results have not been confirmed by NIEHS and are therefore, not official. They are to be used only for general information and to inform the public and grantees on the breadth of research funded by NIEHS.

Viewing 27 publications

Print version (PDF)

(http://www.niehs.nih.gov//portfolio/index.cfm/portfolio/grantpubdetail/grant_number/R01ES022181/format/word)

| Publication Title | Authors | Journal (Pub date) | Volume/Page | PubMed Link |
|--|--|---------------------------------|--------------|-----------------|
| A roadmap for the XCMS family of software solutions in metabolomics. | Mahieu, Nathaniel G; Genenbacher, Jessica Lloyd; Patti, Gary J | Curr Opin Chem Biol (2016 Feb) | 30 / 87-93 | PubMed Citation |
| A view from above: cloud plots to visualize global metabolomic data. | Patti, Gary J; Tautenhahn, Ralf; Rinehart, Duane; Cho, Kevin; Shriver, Leah P; Manchester, Marianne; Nikolskiy, Igor; Johnson, Caroline H; Mahieu, Nathaniel G; Siuzdak, Gary | Anal Chem (2013 Jan 15) | 85 / 798-804 | PubMed Citation |
| After the feature presentation: technologies bridging untargeted metabolomics and biology. | Cho, Kevin; Mahieu, Nathaniel G; Johnson, Stephen L; Patti, Gary J | Curr Opin Biotechnol (2014 Aug) | 28 / 143-8 | PubMed Citation |
| An accelerated workflow for untargeted metabolomics using the METLIN database. | Tautenhahn, Ralf; Cho, Kevin; Uritboonthai, Winnie; Zhu, Zhengjiang; Patti, Gary J; Siuzdak, Gary | Nat Biotechnol (2012 Sep) | 30 / 826-8 | PubMed Citation |
| An untargeted metabolomic workflow to improve structural characterization of metabolites. | Nikolskiy, Igor; Mahieu, Nathaniel G; Chen, Ying-Jr; Tautenhahn, Ralf; Patti, Gary J | Anal Chem (2013 Aug 20) | 85 / 7713-9 | PubMed Citation |
| Autonomous metabolomics for rapid metabolite identification in global profiling. | Benton, H Paul; Ivanisevic, Julijana; Mahieu, Nathaniel G; Kurczy, Michael E; Johnson, Caroline H; Franco, Lauren; Rinehart, Duane; Valentine, Elizabeth; Gowda, Harsha; Ubhi, Baljit K; Tautenhahn, Ralf; Gieschen, Andrew; Fields, | Anal Chem (2015 Jan 20) | 87 / 884-91 | PubMed Citation |

| | | | | | |
|--|---|---|------------------------------|--------------|--------------|
| Bar Coding MS(2) Spectra for Metabolite Identification. | Matthew W; Patti, Gary J; Siuzdak, Gary | Spalding, Jonathan L; Cho, Kevin; Mahieu, Nathaniel G; Nikolskiy, Igor; Llufrio, Elizabeth M; Johnson, Stephen L; Patti, Gary J | Anal Chem (2016 Mar 1) | 88 / 2538-42 | PubMed Citat |
| Credentialing features: a platform to benchmark and optimize untargeted metabolomic methods. | Mahieu, Nathaniel Guy; Huang, Xiaojing; Chen, Ying-Jr; Patti, Gary J | Zamboni, Nicola; Saghatelian, Alan; Patti, Gary J | Anal Chem (2014 Oct 7) | 86 / 9583-9 | PubMed Citat |
| Defining the metabolome: size, flux, and regulation. | Zamboni, Nicola; Saghatelian, Alan; Patti, Gary J | Chen, Ying-Jr; Huang, Xiaojing; Mahieu, Nathaniel G; Cho, Kevin; Schaefer, Jacob; Patti, Gary J | Mol Cell (2015 May 21) | 58 / 699-706 | PubMed Citat |
| Differential incorporation of glucose into biomass during Warburg metabolism. | Chen, Ying-Jr; Huang, Xiaojing; Mahieu, Nathaniel G; Cho, Kevin; Schaefer, Jacob; Patti, Gary J | Nikolskiy, Igor; Siuzdak, Gary; Patti, Gary J | Biochemistry (2014 Jul 29) | 53 / 4755-7 | PubMed Citat |
| Discriminating precursors of common fragments for large-scale metabolite profiling by triple quadrup ... | Gelman, Susan J; Mahieu, Nathaniel G; Cho, Kevin; Llufrio, Elizabeth M; Wencewicz, Timothy A; Patti, Gary J | Nikolskiy, Igor; Siuzdak, Gary; Patti, Gary J | Bioinformatics (2015 Jun 15) | 31 / 2017-23 | PubMed Citat |
| Evidence that 2-hydroxyglutarate is not readily metabolized in colorectal carcinoma cells. | Yao, Cong-Hui; Fowle-Grider, Ronald; Mahieu, Nathaniel G; Liu, Gao-Yuan; Chen, Ying-Jr; Wang, Rencheng; Singh, Manmilian; Potter, Gregory S; Gross, Richard W; Schaefer, Jacob; Johnson, Stephen L; Patti, Gary J | Gelman, Susan J; Mahieu, Nathaniel G; Cho, Kevin; Llufrio, Elizabeth M; Wencewicz, Timothy A; Patti, Gary J | Cancer Metab (2015) | 3 / 13 | PubMed Citat |
| Exogenous Fatty Acids Are the Preferred Source of Membrane Lipids in Proliferating Fibroblasts. | Yao, Cong-Hui; Fowle-Grider, Ronald; Mahieu, Nathaniel G; Liu, Gao-Yuan; Chen, Ying-Jr; Wang, Rencheng; Singh, Manmilian; Potter, Gregory S; Gross, Richard W; Schaefer, Jacob; Johnson, Stephen L; Patti, Gary J | Yao, Cong-Hui; Liu, Gao-Yuan; Yang, Kui; Gross, Richard W; Patti, Gary J | Cell Chem Biol (2016 Apr 21) | 23 / 483-93 | PubMed Citat |
| Inaccurate quantitation of palmitate in metabolomics and isotope tracer studies due to plastics. | Yao, Cong-Hui; Liu, Gao-Yuan; Yang, Kui; Gross, Richard W; Patti, Gary J | Yao, Cong-Hui; Liu, Gao-Yuan; Yang, Kui; Gross, Richard W; Patti, Gary J | Metabolomics (2016 Sep) | 12 / | PubMed Citat |
| Inflammation triggers production of dimethylsphingosine from oligodendrocytes. | Chen, Y-J; Hill, S; Huang, H; Taraboletti, A; Cho, K; Gallo, R; Manchester, M; Shriver, L P; Patti, G J | Chen, Y-J; Hill, S; Huang, H; Taraboletti, A; Cho, K; Gallo, R; Manchester, M; Shriver, L P; Patti, G J | Neuroscience (2014 Oct 24) | 279 / 113-21 | PubMed Citat |

| | | | | |
|--|--|------------------------------------|----------------|--------------|
| Interactive XCMS Online: simplifying advanced metabolomic data processing and subsequent statistical ... | Gowda, Harsha; Ivanisevic, Julijana; Johnson, Caroline H; Kurczy, Michael E; Benton, H Paul; Rinehart, Duane; Nguyen, Thomas; Ray, Jayashree; Kuehl, Jennifer; Arevalo, Bernardo; Westenskow, Peter D; Wang, Junhua; Arkin, Adam P; Deutschbauer, Adam M; Patti, Gary J; Siuzdak, Gary | Anal Chem (2014 Jul 15) | 86 / 6931-9 | PubMed Citat |
| Knockdown of triglyceride synthesis does not enhance palmitate lipotoxicity or prevent oleate-mediat ... | Leamy, Alexandra K; Hasenour, Clinton M; Egnatchik, Robert A; Trenary, Irina A; Yao, Cong-Hui; Patti, Gary J; Shiota, Masakazu; Young, Jamey D | Biochim Biophys Acta (2016 Sep) | 1861 / 1005-14 | PubMed Citat |
| Lactate metabolism is associated with mammalian mitochondria. | Chen, Ying-Jr; Mahieu, Nathaniel G; Huang, Xiaojing; Singh, Manmilan; Crawford, Peter A; Johnson, Stephen L; Gross, Richard W; Schaefer, Jacob; Patti, Gary J | Nat Chem Biol (2016 Nov) | 12 / 937-943 | PubMed Citat |
| Liquid chromatography quadrupole time-of-flight mass spectrometry characterization of metabolites gu ... | Zhu, Zheng-Jiang; Schultz, Andrew W; Wang, Junhua; Johnson, Caroline H; Yannone, Steven M; Patti, Gary J; Siuzdak, Gary | Nat Protoc (2013 Mar) | 8 / 451-60 | PubMed Citat |
| Metabolomic data streaming for biology-dependent data acquisition. | Rinehart, Duane; Johnson, Caroline H; Nguyen, Thomas; Ivanisevic, Julijana; Benton, H Paul; Lloyd, Jessica; Arkin, Adam P; Deutschbauer, Adam M; Patti, Gary J; Siuzdak, Gary | Nat Biotechnol (2014 Jun) | 32 / 524-7 | PubMed Citat |
| Monitoring metabolic responses to chemotherapy in single cells and tumors using nanostructure-initia ... | O'Brien, Peter J; Lee, Michelle; Spilker, Mary E; Zhang, Cathy C; Yan, Zhengming; Nichols, Timothy C; Li, Wenlin; Johnson, Caroline H; Patti, Gary J; Siuzdak, Gary | Cancer Metab (2013) | 1 / 4 | PubMed Citat |

| | | |
|--|--|---|
| The disruption of Celf6, a gene identified by translational profiling of serotonergic neurons, resul ... | Dougherty, Joseph D; Maloney, Susan E; Wozniak, David F; Rieger, Michael A; Sonnenblick, Lisa; Coppola, Giovanni; Mahieu, Nathaniel G; Zhang, Juliet; Cai, Jinlu; Patti, Gary J; Abrahams, Brett S; Geschwind, Daniel H; Heintz, Nathaniel | J Neurosci (2013 33 / 2732-53 PubMed Citat Feb 13) |
| The isotridecanyl side chain of plusbacin-A3 is essential for the transglycosylase inhibition of pep ... | Kim, Sung Joon; Singh, Manmilian; Wohlrab, Aaron; Yu, Tsyr-Yan; Patti, Gary J; O'Connor, Robert D; VanNieuwenhze, Michael; Schaefer, Jacob | Biochemistry 52 / 1973-9 PubMed Citat (2013 Mar 19) |
| Toward 'omic scale metabolite profiling: a dual separation-mass spectrometry approach for coverage o ... | Ivanisevic, Julijana; Zhu, Zheng-Jiang; Plate, Lars; Tautenhahn, Ralf; Chen, Stephen; O'Brien, Peter J; Johnson, Caroline H; Marletta, Michael A; Patti, Gary J; Siuzdak, Gary | Anal Chem 85 / 6876-84 PubMed Citat (2013 Jul 16) |
| Warpgroup: increased precision of metabolomic data processing by consensus integration bound analysi ... | Mahieu, Nathaniel G; Spalding, Jonathan L; Patti, Gary J | Bioinformatics 32 / 268-75 PubMed Citat (2016 Jan 15) |
| X13CMS: global tracking of isotopic labels in untargeted metabolomics. | Huang, Xiaojing; Chen, Ying-Jr; Cho, Kevin; Nikolskiy, Igor; Crawford, Peter A; Patti, Gary J | Anal Chem 86 / 1632-9 PubMed Citat (2014 Feb 4) |
| XCMS Online: a web-based platform to process untargeted metabolomic data. | Tautenhahn, Ralf; Patti, Gary J; Rinehart, Duane; Siuzdak, Gary | Anal Chem 84 / 5035-9 PubMed Citat (2012 Jun 5) |